

Description of a New Species and Collection Data of Pamphiliid Sawflies (Insecta, Hymenoptera, Symphyta) Mainly from the Russian Far East

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Abstract *Pamphilius leleji* sp. nov. is described on the basis of the material from Primorskiy kray, the Russian Far East. Collection records are given for 15 species of pamphiliid sawflies of the genera *Neurotoma*, *Onycholyda* and *Pamphilius* mainly from various regions of the Russian Far East. New distribution records are *P. archiducalis* Konow, 1897, from Sakhalin, *P. balteatus* (Fallén, 1808) from Sakha and Primorskiy kray, *P. hilaris* (Eversmann, 1847) from Sakha, Khabarovskiy kray and Primorskiy kray, *P. hortorum* (Klug, 1808) from Magadanskaya oblast and Primorskiy kray, and *P. latifrons* (Fallén, 1808) and *P. lobatus* Maa, 1950 from Primorskiy kray. The first definite collection data of *P. tricolor* Beneš, 1974 from Primorskiy kray and those of *P. pallidus* Shinohara, 1988 from Korea are also given.

Key words: Hymenoptera, Pamphiliidae, *Pamphilius*, new species, new distribution records.

The sawfly family Pamphiliidae is richly represented in the Russian Far East, but our knowledge on this subject remains rather fragmentary (Shinohara, 2004). The monumental but now badly outdated monograph of Gussakovskij (1935) is still the only work covering the Far Eastern species of the family as a whole. Subsequent revisions of respective genera or species-groups and some faunal works, such as Beneš (1972, 1974, 1976, etc.) and Shinohara (1987, 1991, 1995a, 2001, 2005, etc.), included material from the Russian Far East.

In the present paper, we will describe a new species of the genus *Pamphilius* from Primorskiy kray and give collection data of 15 species of the genera *Neurotoma*, *Onycholyda*, and *Pamphilius* mainly from the Russian Far East.

The material used in this work mainly comes from the three different sources: 1) the material collected in Khabarovskiy kray and Primorskiy kray by A. Taeger in 1993 (kept in Deutsches En-

tomologisches Institut, Müncheberg: DEI); 2) the material obtained in the same regions by A. Shinohara in 1994 and 1995 (kept in the National Museum of Nature and Science, Tokyo: NSMT); and 3) the collection housed in the Zoological Institute, Russian Academy of Sciences, St. Petersburg (ZISP). Some of the Far East Russian material kept in DEI was already studied by Shinohara (2000, 2001, 2005) and the material in NSMT by Shinohara (1995a, b, 1998, 2001, 2005), Shinohara and Hara (2000) and Shinohara and Zhou (2006).

Other material used are kept in the following depositories:

HU: Faculty of Agriculture, Hokkaido University, Sapporo

IBPV: Institute of Biology and Soil Science, Russian Academy of Sciences, Vladivostok

MU: Zoological Museum, Moscow State University, Moscow

OPU: College of Agriculture, Osaka Prefec-

ture University, Sakai

kray.

***Neurotoma sibirica* Gussakovskij, 1935**

Distribution. East Siberia, "Amur", Khabarovskiy kray, Primorskiy kray, Sakhalin, Korea, Japan (Hokkaido), Shikotan Is.

Material examined. Khabarovskiy kray: 6 ♀, 4 ♂, Boitsovo, 20 km N Bikin, Bolshoi Solntsepyok Hill, 300 m, 47.02N 134.21E, 26.V.1993, leg. A. Taeger (DEI); 3 ♀, Bychikha, Bolshekhkhtsirskiy Zapovednik, 11.VI.1994, A. Shinohara (NSMT); 28 ♀, 6 ♂, Sosninskiy River, 5 km SW Bychikha, Bolshekhkhtsirskiy Zapovednik, 12–15.VI.1994, A. Shinohara (NSMT). Primorskiy kray: 4 ♀, 2 ♂, Samarka, 70 km N Chuguyevka, 200 m, 44.43N 134.12E, 30.V.1993, leg. A. Taeger (DEI); 1 ♀, Anisimovka (=Kangaus), 70 km E Vladivostok, 250 m, 43.11N 132.41E, 7.VI.1993, leg. A. Taeger (DEI); 2 ♀, Anisimovka, 300 m, 1.VI.1994, A. Shinohara (NSMT); 1 ♀, 1 ♂, same locality, 21.V.1995, A. Lelej (NSMT); 1 ♀, same locality, 5.VI.1995, A. Lelej (NSMT); 2 ♀, Okeanskaya, Vladivostok, 28.V.1994, A. Shinohara (NSMT); 1 ♀, Uglekamensk, 2.VI.1994, A. Shinohara (NSMT); 50 ♀, 9 ♂, Valley of Tigrovaya River, 180 m, 12 km N Partizansk, 4–7.VI.1994, A. Shinohara (NSMT).

Remarks. Shinohara (1992) already recorded this species from Khabarovskiy kray and Primorskiy kray.

***Onycholyda armata* (Maa, 1949)**

Distribution. Tomskaya oblast, Khabarovskiy kray, Primorskiy kray, China (Jilin, Zhejiang), Korea.

Material examined. Primorskiy kray: 1 ♂, Anisimovka (=Kangaus), 70 km E Vladivostok, 250 m, 43.11N 132.41E, 7.VI.1993, leg. A. Taeger (DEI); 1 ♀, 6 km E Okeanskaya Station, Vladivostok, 9–10.VI.1994, A. Shinohara (NSMT); 1 ♀, Ussuriyskiy Zapovednik, 9–12.VI.1995, A. Lelej (NSMT).

Remarks. Shinohara and Beneš (1988) already recorded this species from Primorskiy

***Onycholyda nigroclypeata* Shinohara, 1987**

Distribution. Khabarovskiy kray, Primorskiy kray, China (Heilongjiang), Korea.

Material examined. Primorskiy kray: 1 ♂, Tamga, 17 km NE Lesozavodsk, 130 m, 45.37N 133.36E, 24.V.1993, leg. A. Taeger (DEI).

Remarks. This species is already known from Primorskiy kray. One of the paratypes is from Vladivostok (Shinohara, 1987).

***Onycholyda sertata* (Konow, 1902)**

(Fig. 1 A–C)

***Onycholyda rufofasciata*:** Beneš, 1972: 388 (not Norton, 1869 in Norton, 1867–1869).

Distribution. Northern Europe, across Siberia to Primorskiy kray, China (Jilin), Korea.

Material examined. FINLAND: 1 ♀, Turenki, EH, 14–17.VI.1975, A. Shinohara (NSMT). RUSSIA: Leningradskaya Oblast': 1 ♀, "Gatchina, Tsarsk. U. SPB. G. Malogatchivsk. Liesn. Dacha, 18.VI.21, V. V. Barovskij" (ZISP). Tatarstan: 1 ♀, "Kas [?] VI" "*Lyda arbustorum* Fabr., k Eversmana" "*Pamphilius sertata* Knw. ♀, Gussakovskij det." (ZISP). Bashkiria: ♀ (lectotype, Fig. 1 A–B), "Typus" "Ural Gouv. Ufa" "coll. Konow" [other labels as in Fig. 1C] (DEI). Altai: 1 ♀, "Altai, v gorakh, 11.VI.09, Emel'yanov" "*Pamphilius sertatus* Knw. ♀, Gussakovskij det." (ZISP). Krasnoyarskiy kray: 1 ♀, "Vyezshij Log., Krasn. u., Enis. g., Tugarinova, 6/VII/ 912" (ZISP). Irkutskaya oblast: 1 ♀, "Irkutsk, r-n., s M. Goloustnoe, s *Dasiphora*, [?], B. Verzhutskij" "*Pseudopamphilius rufofasciatus* Nort., det. Beneš, 1970 ♀" (NSMT). Sakha: 1 ♀, "Yakutiya, [illegible hand-written Cyrillic], 26.VI.976" (ZISP); 1 ♀, "Yakutiya, ust'e Olekmy, Troitskoe, Kajmuk, 3.VII.970" (ZISP). Khabarovskiy kray: 1 ♀, "Wyazemskiy, 100 km SSW Chabarovsk, 27–28.V.1968, A. Shtundyuk" (MU); 1 ♂, Boitsovo, 20 km N Bikin, Bolshoi Solntsepyok Hill, 300 m, 47.02N 134.21E,

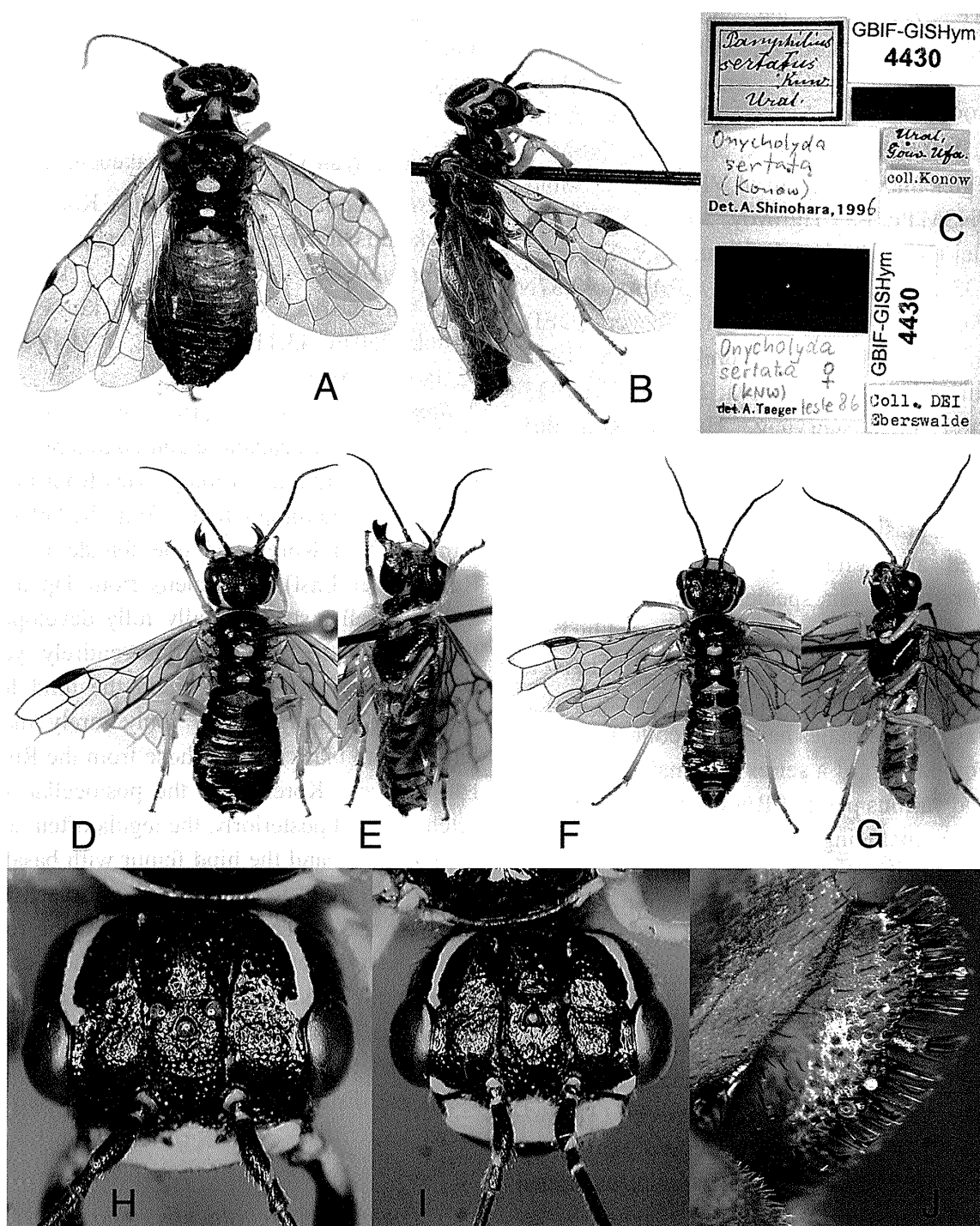


Fig. 1. *Onycholyda sertata* (Konow), female lectotype (A–B) and attached labels (C) and *Pamphilius leleji* sp. nov., female paratype (D–E, H, J) and male holotype (F–G, I).—A–B, D–G, Entire insects; H–I, heads, dorsofrontal view; J, sawsheath, lateral view.

26.V.1993, leg. A. Taeger (DEI). Primorskiy kray: 1 ♀, "Primori'e, okr. Frolovki, L. Zhil'tsova, 11.VI.1984" (ZISP); 1 ♀, "Yu. Ussur. Kr. Tki, Kamlyaya/Ussur. zaya. Prinada, 1928" (ZISP); 1 ♀, "Primorsk. Obl., oz Khanka, c. Kamen-Rybolov, 17.VII.10, A. Tarabarov" "*Pamphilius ser-*

tatus Knw., ♀, Gussakovskij det." (ZISP); 1 ♀, "Vladivostok, 19 km, 17.6.62g, A. Rasnitsyn, V. Sulimov" (MU); 1 ♀, "Gribnoje env., Sinnij Chrbet Mts., 17–19.VI.1997, L. Roller & L. Vidlicka" (NSMT); 1 ♀, Anisimovka (=Kangas), 70 km E Vladivostok, 250 m, 43.11N

132.41E, 7.VI.1993, leg. A. Taeger (DEI); 1 ♀ 1 ♂, Anisimovka 300 m, 1.VI.1994, A. Shinohara (NSMT); 1 ♀, Anisimovka 300 m, 31.V.1994, A. Shinohara (NSMT); 1 ♀, Anisimovka 300 m, 3.VI.1995, A. Shinohara (NSMT); 1 ♀, Uglekamensk, 250 m, 4.VI.1994, A. Shinohara (NSMT); 1 ♀, Tigrovoy, 300 m, 5.VI.1995, A. Lelej (NSMT); 4 ♀ 1 ♂, Ussuriyskiy Zapovednik, 33 km SE Ussuriysk, 250 m, 43.37N 132.18E, 14.VI.1993, leg. A. Taeger (DEI); 1 ♀ 1 ♂, Ussuriyskiy Zapovednik, 9–12.VI.1995, A. Shinohara (NSMT). Korea: 2 ♀, “27.VII.1935, Mosanrei [=Musanyong, Hamgyongbuk-do], Takeuchi” (OPU).

Remarks. This species is widespread in northern Eurasia. In Europe, males have not been collected and Viitasaari (2002) and Vikberg (2002) regarded this species as parthenogenetic, though this view has not been confirmed by rearing (Vikberg, pers. com.). In the Russian Far East, however, females as well as probably correctly associated males have been collected.

A comparison of a series of females from Finland and various parts of Russia (mostly from the Far East), including the lectotype (Fig. 1A–C) from Ural, has revealed no significant geographical differences, though some of the East Asian females have the yellow marking on the head more or less reduced. Beneš (1972) identified one of such dark colored specimens with the Nearctic *O. rufofasciata*, which is a smaller species with pale yellow trochanters and trochantelli. Shinohara has examined a Siberian female of *O. sertata* determined as “*Pseudopamphilius rufofasciatus* Nort.” by K. Beneš (see material examined above); we believe *O. rufofasciata* should be removed from the list of Palearctic sawflies.

The male of this species resembles that of *O. similis* Shinohara, 1987, from Japan but differs from it as follows: anterior margin of clypeus scarcely thickened; mesepisternum strongly rugose, only dorsal margin smooth; trochanters and trochantelli black; 4th (sometimes also part of 3rd and 5th) tergum often mostly orange; posterior margin of each of 3rd to 7th abdominal sterna only medially pale yellow; pale yellow marking

on 3rd to 5th sterna large and that on 7th very small, 3rd and 4th sterna often marked with dark orange.

Onycholyda viriditibialis (Takeuchi, 1930)

Distribution. Primorskiy kray, Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu).

Material examined. Primorskiy kray: 1 ♀, 1 ♂, Anisimovka (=Kangaus), 70 km E Vladivostok, 250 m, 43.11N 132.41E, 7.VI.1993, leg. A. Taeger (DEI).

Remarks. Shinohara (1986) noted some differences between Japanese and continental populations after studying a long series from the former region and three females from the latter (two females from Korea and one female from the Russian Far East). Specimens from Japan have the postocellar stripe usually fully developed in the female, the tegula almost entirely yellow (only narrow basis black), and the hind femur mostly or entirely yellow (only rarely marked largely with black), while those from the Russian Far East and Korea have the postocellar stripe often reduced posteriorly, the tegula often largely black-marked and the hind femur with basal half black. Two more females each from the Russian Far East and Korea and a male from the former region have become available since then, and the differences listed above have been found constant. The male has the transverse crest almost connected to the ocular crest, whereas the two crests are distinctly separated in Japanese specimens.

Pamphilius archiducalis Konow, 1897

Distribution. Sakhalin, Japan (Hokkaido, Honshu), Shikotan Is.

Material examined. Sakhalin: 1 ♀, Horo, 21.VII.1932, H. Kono, Haga, Shimizu (HU).

Remarks. This is the first record of *P. archiducalis* from Sakhalin. The record from Shikotan Is. is based on Ermolenko (1973).

***Pamphilius balteatus* (Fallén, 1808)**

Distribution. Europe, Chitinskaya oblast, Baikal region, Sakha, Kamchatka, Primorskiy kray, Sakhalin, Korea, Japan (Hokkaido).

Material examined. Irkutskaya oblast: 1 ♂, Rassokha, 40 km Yu Irkutsk, 13.VI.1975, Kasparyan (ZISP); 1 ♂, "Irkutsk, V. E. Jakovlev" "coll. Semenov-Tian-Shansky" (ZISP). Sakha: 2 ♂, "Khaptagay, 35 km YuYuV Yakutska, 23.VI.1974, Bagachanova (ZISP); 1 ♂, same locality, 15.VI.1974, Kajmuk (ZISP); 1 ♂, Oktemtsy, 50 km YuYuZ Yakutska, E. Kajmuk, 11.VI.1976 (ZISP). Kamchatka: 1 ♀, Kamchatka, vyrubki, 20 km S Kozyrevska, 21.VII.1985, Belokov (ZISP). Primorskiy kray: 3 ♀, 1 ♂, Samarka, 70 km N Chuguyevka, 200 m, 44.43N 134.12E, 30.V.1993, leg. A. Taeger (DEI, NSMT).

Remarks. This is the first record of *P. balteatus* from Sakha and Primorskiy kray.

***Pamphilius hiliaris* (Eversmann, 1847)**

Distribution. Orenburg, Tomskaya oblast, Sakha, Khabarovskiy kray, Primorskiy kray, Kamchatka, China (Shaanxi), Japan (Honshu).

Material examined. Sakha: 1 ♀, "Khaptagay, 35 km YuYuV Yakutska, 19.VI.1973, Kajmuk" (ZISP). Khabarovskiy kray: 1 ♂, "protiv Malyshenskoe, niz. Amura, 10.VI.1910, Soldatov" (ZISP). Primorskiy kray: 1 ♀, Przhivalskiy Mtns., 53 km SE Ussuriysk, 250 m, 43.37N 132.35E, 13.VI.1993, leg. A. Taeger (DEI); 1 ♀, 13 km S Ussuriysk, 100 m, 43.42N 132.00E, 15.VI.1993, leg. A. Taeger (NSMT).

Remarks. This widespread rose-feeding species is new to the fauna of Sakha, Khabarovskiy kray, and Primorskiy kray.

***Pamphilius hortorum* (Klug, 1808)**

Distribution. Europe, Siberia, Magadanskaya oblast, Primorskiy kray, China (Jilin), Korea, Sakhalin, Japan (Hokkaido, Honshu), Shikotan Is.

Material examined. Magadanskaya oblast: 1 ♀, "Upper Kolyma r., 62°N 139°40E, 1250 m,

mnt tundra, 21.7.1987, M. Viitasaari" (ZISP). Primorskiy kray: 1 ♀, "Prim. kray, 3.V.1954g, Kol. Kononov" (IBPV).

Remarks. This is probably the first distribution record of *P. hortorum* from Magadanskaya oblast and Primorskiy kray.

***Pamphilius kyutekparki* Shinohara, 1991**

Distribution. Primorskiy kray, Korea.

Material examined. Primorskiy kray: 1 ♀, 20 km SW Putsilovka, Monakino, 24–28.6.1993, leg. Belokobylskij (DEI).

Remarks. Shinohara (1991) and Shinohara and Zhou (2006) already recorded this species from Primorskiy kray.

***Pamphilius latifrons* (Fallén, 1808)**

Distribution. Europe, Irkutskaya oblast, Primorskiy kray.

Material examined. Primorskiy kray: 1 ♀, "Prim. Kr., Sup. Zap., 21.VI.66g, Il'mobo-shirokolistvenn. les, Konobalova, Z. A." (IBPV).

Remarks. This is the first collection record of *P. latifrons* from Primorskiy kray. Outside Europe, this species was recorded only from Zailiskiy Alatau, Kazakhstan (Zhelochovtsev, 1988), and Baikal region by Jacobson (1909) and Beneš (1976). Unfortunately, the female specimen examined is not in good condition, having no antennae. Compared with the European specimens, the head and the abdomen have less black areas; the head is mostly pale yellow, with the large ocellar and postocellar marking black, and the 3rd to 8th terga are largely marked with orange. The upper part of head is nearly glabrous, but the hairs were probably damaged and lost when the antennae were broken.

***Pamphilius leleji* sp. nov.**

(Figs. 1 D–J, 2)

Female (Fig. 1D–E). Length about 9.5–10 mm. Head black, with anterior 1/2–3/4 of clypeus and supraocular stripe running from upper inner orbit to dorsal part of postgenal cari-

na pale yellow (Fig. 1H); malar space and gena entirely black; lower inner orbit often with very small obscure yellowish spot. Mandible black, with base and broad outer surface pale yellow, and apical part dark brown. Antenna blackish brown; scape mostly black. Thorax black, with following parts pale yellow: spot at ventral margin of lateral pronotum, broad band along posterior margin of pronotum (medially broadly interrupted), tegula, minute paired spots at posterior corner of mesoscutal median lobe, mesoscutellum, metascutellum, and most of lateral surface of metepisternum; mesepisternum often with small pale yellow spot at anterior margin and in posterolateral part. Wings hyaline, very slightly blackish brown; veins and stigma blackish brown; veins C and Sc pale brown. Legs pale yellow, with narrow coxal bases black. Abdomen black dorsally, with very narrow lateral margins pale yellow and median parts of 3rd to 5th segments orange; pale yellow ventrally, with broad anterior margin of each sternum black.

Upper frons below ocelli slightly convex; ocellar basin (broad furrow around median ocellus) distinct, subtriangular, without anterior and lateral extensions; median fovea indistinct; vertex weakly roundly convex with very shallow and indistinct coronal suture; transverse suture sharply defined; lateral transverse suture indistinct, recognizable by difference in surface microsculpture; frontoclypeal crest low, rounded, slightly lowered at frontoclypeal borders; facial crest weakly convex, rounded; postgenal carina sharply defined laterally, becoming blunt dorsally and extending nearly up to posterior end of lateral suture. Upper part of head behind transverse and lateral transverse sutures smooth, with sparse punctures; clypeus densely punctate, lateral parts distinctly rugose; paraantennal field with dorsal part densely, rather shallowly punctate and outer ventral part nearly impunctate; frons and area between facial crest and lateral transverse sutures roughly but shallowly rugose and punctate; gena shallowly rugose and sparsely punctate. Antenna 20 or 21 segments, with 3rd segment about $2.8\text{--}3.0\times$ length of 4th. Cell C of forewing

glabrous. Sawsheath as in Fig. 1J; appendage large, slender and setose.

Male (Fig. 1F–G). Length about 8–9 mm. Head black, with most of clypeus, triangular spot on paraantennal field along lower inner orbit, and supraocular stripe running from upper inner orbit to dorsal part of postgenal carina pale yellow (Fig. 1I); malar space and gena entirely black. Mandible black, with base and broad outer surface pale yellow, and apical part dark brown. Antenna pale brown ventrally and blackish dorsally; scape and pedicel pale yellow ventrally and black dorsally. Thorax black, with following parts pale yellow: spot at ventral margin of lateral pronotum, broad band along posterior margin of pronotum (medially broadly interrupted), tegula, mesoscutellum, metascutellum, and variable but usually large marking on lateral surface of metepisternum; cervical sclerite and mesepisternum sometimes with obscure pale yellow markings. Wings hyaline, very slightly blackish brown; veins and stigma blackish brown; veins C and Sc pale brown. Legs pale yellow, with narrow coxal bases black. Abdomen black dorsally, with very narrow lateral margins pale yellow and median parts of 3rd to 5th segments orange; pale yellow ventrally, with broad anterior margins of one or two basal segments black.

In structure, similar to female. Antennae with 19–21 (usually 20) segments, with 3rd segment about $2.6\text{--}3.2$ (usually $2.7\text{--}2.9$) \times length of 4th. Subgenital plate rounded at apex. Genitalia as in Fig. 2.

Distribution. Russian Far East (Primorskiy kray).

Holotype: ♂, Valley of Tigrovaya River, 180 m, 12 km N Partizansk, Primorskiy kray, Russia, 4.VI.1994, A. Shinohara (IBPV).

Paratypes: Primorskiy kray: 1 ♀, Anisimovka (=Kangaus), 70 km E Vladivostok, 250 m, 43.11N 132.41E, 7.VI.1993, leg. A. Taeger (DEI); 1 ♀, Foot of Mt. Litvoka, Anisimovka, 400 m, 30.V.1994, A. Shinohara (NSMT); 1 ♀, Anisimovka, 300 m, 1.VI.1994, A. Shinohara (NSMT); 1 ♀, same locality, 3.VI.1995, A. Shinohara (NSMT); 1 ♀, Ussuriyskiy Zapovednik,

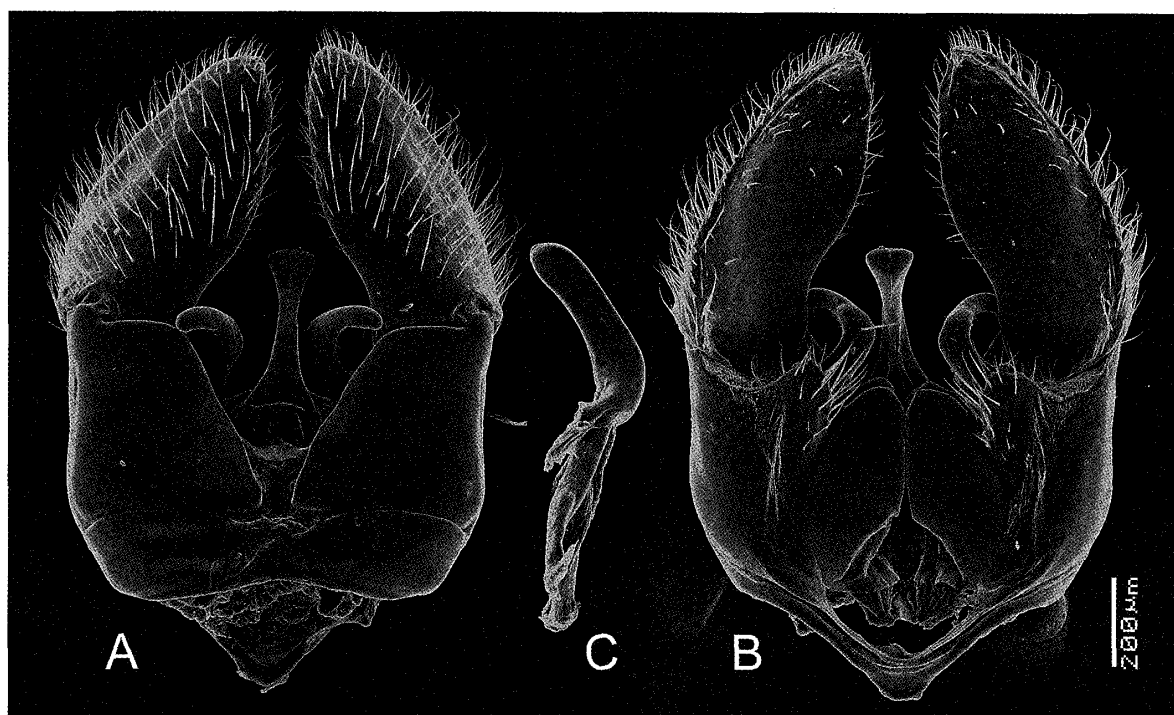


Fig. 2. *Pamphilius leleji* sp. nov., male genitalia, paratype.—A, Dorsal view; B, ventral view; C, penis valve, lateral view.

9–12.VI.1995, A. Shinohara (NSMT); 6♂, Valley of Tigrovaya River, 180 m, 12 km N Partizansk, 4.VI.1994, A. Shinohara (NSMT); 5♂, same data except 5.VI.1994 (NSMT); 1♂, same data except 6.VI.1994 (NSMT); 1♂, same data except 7.VI.1994 (NSMT).

Host-plant. Unknown.

Etymology. We take pleasure in naming this species in honor of Dr. Arkady Lelej, IBPV, who has greatly contributed to the study of East Asian wasps.

Remarks. This new species closely resembles *P. balteatus* (Fallén) and *P. itoi* Shinohara, 1985. Shinohara (1985) compared *P. itoi* with *P. balteatus*, *P. hortorum* (Klug) and *P. aucupariae* Vikberg, 1971 and gave characters shared by them. *Pamphilius leleji* possesses all those characters, except that the costal cell in the forewing is wholly glabrous and the anterior margin of clypeus is very broadly yellow in females. The new species is distinguished from *P. balteatus* and *P. itoi* as follows.

From *P. balteatus*:

1. Cell C in the forewing wholly glabrous; stig-

ma uniformly blackish brown. Female: anterior margin of clypeus very broadly yellow (Fig. 1H); broad furrow around median ocellus (ocellar basin) rather deep, entire; ventral part of lateral pronotum with pale yellow spot; mesepisternum often with small yellow spot posterolaterally; metepisternum mostly yellow laterally. Male: head color pattern as in Fig. 1I; gena and malar space entirely black; mesoscutal median lobe entirely black; ventral side of thorax mostly black; 3rd tergum usually orange medially; genitalia as in Fig. 2.....*P. leleji*

— Cell C in the forewing wholly pilose; stigma medially pale brown. Female: anterior margin of clypeus narrowly yellow or entirely black; broad furrow around median ocellus rather shallow, often interrupted between two pits just in front of median ocellus; lateral pronotum mostly or entirely black; mesepisternum and metepisternum entirely black. Male: anterior surface of head ventral to level of facial crest, malar space, and most of gena yellow (figs. 6, 7 in Shinohara,

1985); mesoscutal median lobe with posterior half yellow; ventral side of thorax largely yellow; 3rd tergum usually without or with very small orange area; genitalia as in figs. 11, 15, 19 in Shinohara, 1985.*P. balteatus*

From *P. itoi*:

1. Punctures on head generally shallow and not sharply defined; cell C in forewing wholly glabrous; stigma uniformly blackish brown. Female: anterior margin of clypeus very broadly yellow; supraocular stripe terminating at upper corner of eye, not extending along inner orbit (Fig. 1 H). Male: gena and malar space entirely black; genitalia as in Fig. 2.*P. leleji*
- Punctures on head generally deep and sharply defined; cell C in forewing wholly pilose; stigma usually brown to dark brown. Females: anterior margin of clypeus narrowly yellow; supraocular stripe usually extending anteriorly along inner orbit (fig. 3 in Shinohara, 1985). Male: gena and malar space more or less yellow-marked (fig. 5 in Shinohara, 1985); genitalia as in figs. 9, 13, 17 in Shinohara, 1985.*P. itoi*

***Pamphilius lobatus* Maa, 1950**

Distribution. Primorskiy kray, China (Jilin), Korea, Japan (Hokkaido, Honshu).

Material examined. Primorskiy kray: 1 ♀, 1 ♂, Anisimov Pass, 400 m, 5 km E Anisimovka, 6–7.VI.1995, A. Shinohara (NSMT); 1 ♂, Ussuriyskiy Zapovednik, 9–12.VI.1995, A. Shinohara (NSMT); 1 ♂, Pass, 28 km NNW Partizansk, 13–14.VI.1995, A. Shinohara (NSMT).

Remarks. This is the first record of *P. lobatus* from Primorskiy kray.

***Pamphilius pallidus* Shinohara, 1988**

Distribution. Primorskiy kray, Korea.

Material examined. Korea: 1 ♀, Mirugam (Pukdae-sa), 1300 m, Odaesan Mts., Kangwon-do, 28.V.2002, A. Shinohara (NSMT).

Remarks. This species was described on the basis of two females from Spassk, Primorskiy

kray, and no other specimens have been recorded. Shinohara (2004) listed this species as occurring in Korea but gave no collection data.

***Pamphilius sapporensis* (Matsumura, 1912)**

Distribution. Sakhalin, Japan (Hokkaido), Shikotan Is.

Material examined. Sakhalin: 1 ♀, “Sakhalin, p. Lugovoe, A. Basarkin, 3.V.1985” (ZISP).

Remarks. Another collection record of this species from Sakhalin was given by Shinohara (2002).

***Pamphilius tricolor* Beneš, 1974**

Distribution. Urals, eastern Siberia, Sakha, Kamchatka, Magadanskaya oblast, Khabarovskiy kray, Primorskiy kray, Korea, Japan (Hokkaido, Honshu).

Material examined. Khabarovskiy kray: 1 ♀, Boitsovo, 20 km N Bikin, Bolshoi Solntsepyok Hill, 300 m, 47.02N 134.21E, 26.V.1993, leg. A. Taeger (DEI). Primorskiy kray: 1 ♀, Anisimov Pass, 400 m, 5 km E Anisimovka, 6–7.VI.1995, A. Shinohara (NSMT); 1 ♀, same data except leg. A. Lelej (NSMT); 1 ♀, Ussuriyskiy Zapovednik, 9–12.VI.1995, A. Lelej (NSMT).

Remarks. Shinohara (2004) listed this species as occurring in Primorskiy kray but no collection data from this region have been published.

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